

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

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COUNTRY	Czechoslovakia	REPORT	[redacted]	25X1
SUBJECT	Novaky Chemical Works, Novaky	DATE DISTR.	18 March 1953	
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This is UNEVALUATED Information

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.  
THE APPRAISAL OF CONTENT IS TENTATIVE.  
(FOR KEY SEE REVERSE)

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Location

1. The old Novaky (Q49/T97) chemical factory is located about 18 to 20 km. north of Topolcany (P49/T84) railway station and about 7 km. south of the town of Novaky.
2. The new chemical plant (Novacke chemicke zavody) is about 5 km. southwest of the old plant and is near Zemianske-Kostolany (Q49/T96).

History

3. The Novaky chemical factory was built during the period of the first Czechoslovak Republic. In 1945 it was damaged by bombing, but immediately after the war the factory started up production again. In 1948 the Communist regime brought out an 8-year plan for the development and production of this factory (1948-1956). The production processes in all sections are fully mechanized and automatic.

Products

4. The most important product is BD.2 war gas, which is described as a new poison gas and is manufactured only in small quantities under great secrecy. The composition is not known. The following other chemical substances are produced:
  - a. Liquid chlorine, which is produced as gas and led underground to 20 converters, where it is liquified. The liquid, which is of high purity, is stored in 10,000 to 30,000-liter steel tanks and also in 30 to 50-liter steel bottles (Stahlbomben). This liquid is used for the manufacture of Perit gas. Some 80% of the production comes from the New Plant. It is shipped to the USSR, Hungary and Poland.

25 YEAR RE-REVIEW

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STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC						
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(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".)

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- b. Salzhydrogen (sic) is produced in great purity by the New Plant for military purposes and for laboratories in Czechoslovakia. From this is produced a special Salzhydrogen with a high iron content.
- c. Liquid caustic soda; 33% of the production is for Czechoslovak factories. The remainder is exported to the USSR, Hungary and Bulgaria. It is transported by rail in tankers.
- d. Trichloroethylene, which is used for chemical cleaning, is produced in three grades. The first and second grades are exported to the USSR, Bulgaria, Hungary, China, [REDACTED]. The third grade is for domestic consumption. 25X1
- e. Lugkoe-Kemeny (Steinlug)<sup>2</sup>; 45% of production is for Czechoslovak factories. The remainder is exported to the USSR, Hungary and Rumania in 400 to 500 kg. capacity metal drums. 25X1
- f. Polyvinylchloride is a new plastic [REDACTED]. It is made in flakes and is sent to Pardubice for heat-forming into various military products which are exported to the USSR.
- g. Chloride of lime is produced for domestic consumption; it is also exported to Hungary and Bulgaria.
- h. Plastic products are produced for domestic use; they are also exported to the USSR.

Raw Materials

- 5. Household salt is imported from the Soviet Slatinska, salt mines in sub-Carpathia. Carbide and burnt-lime are brought by rail from Handlova in Slovakia. The entire production of the Novaky coal mines is sent to the factory by direct rail line.

Transportation

- 6. All transportation is done by rail and the factory has 80 tankcars for the despatch of finished products.

Labor

- 7. About 1,200 workers and 53 technicians are employed in this plant. Political prisoners from forced labor camps also provide labor. Work is carried out in one shift from 6:30 a.m. to 2:30 p.m. in the following sections:
  - (a) Offices.
  - (b) Storehouses.
  - (c) Furnaces.
  - (d) Development section.
  - (e) Heavy industries supply section.
  - (f) Fuel section.
- 8. All other departments work day and night in three shifts.

Wages

- 9. Workers receive between 2,500 and 3,000 Kcs. per month, out of which they have to buy their working clothes and rubber boots. Female office employees receive between 1,500 and 2,000 Kcs. per month.

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Personalities

- 10. The managing director of this factory is Krahulec, (fnu), a former worker.

Security

- 11. Ingoing and outgoing personnel are checked by the works militia, who are armed with service rifles and machine pistols. Guard dogs are used. The guards are dressed in blue overalls with leather belts and black berets. They wear red bands on their left arms with the initials "L.M." (People's Militia). The factory has a volunteer fire-brigade and Red Cross and first aid ambulances. The old plant is surrounded by a three meter concrete wall and further protected by a triple barbed wire fence inside the wall.

Planned Expansion

- 12. The following developments to the plant are planned for 1952-1953.
  - a. Extension of plant and installation of new equipment.
  - b. Erection of an acetylene plant to serve the whole of Czechoslovakia.
  - c. Erection of the largest power station in Czechoslovakia, in connection with the acetylene plant.
- 13. When all planned expansion has been completed, it is estimated that the labor force will be increased to around 40,000 workers.

1.  Comment: It is not clear from the original report whether the last two sentences above refer to Perit or to the liquid chlorine production as a whole. 25X1

2.  Comment: Possibly lye. 25X1

Annexes:

- (A) Sketch of the Novaky Chemical Works.
- (B) Key to Annex (A).

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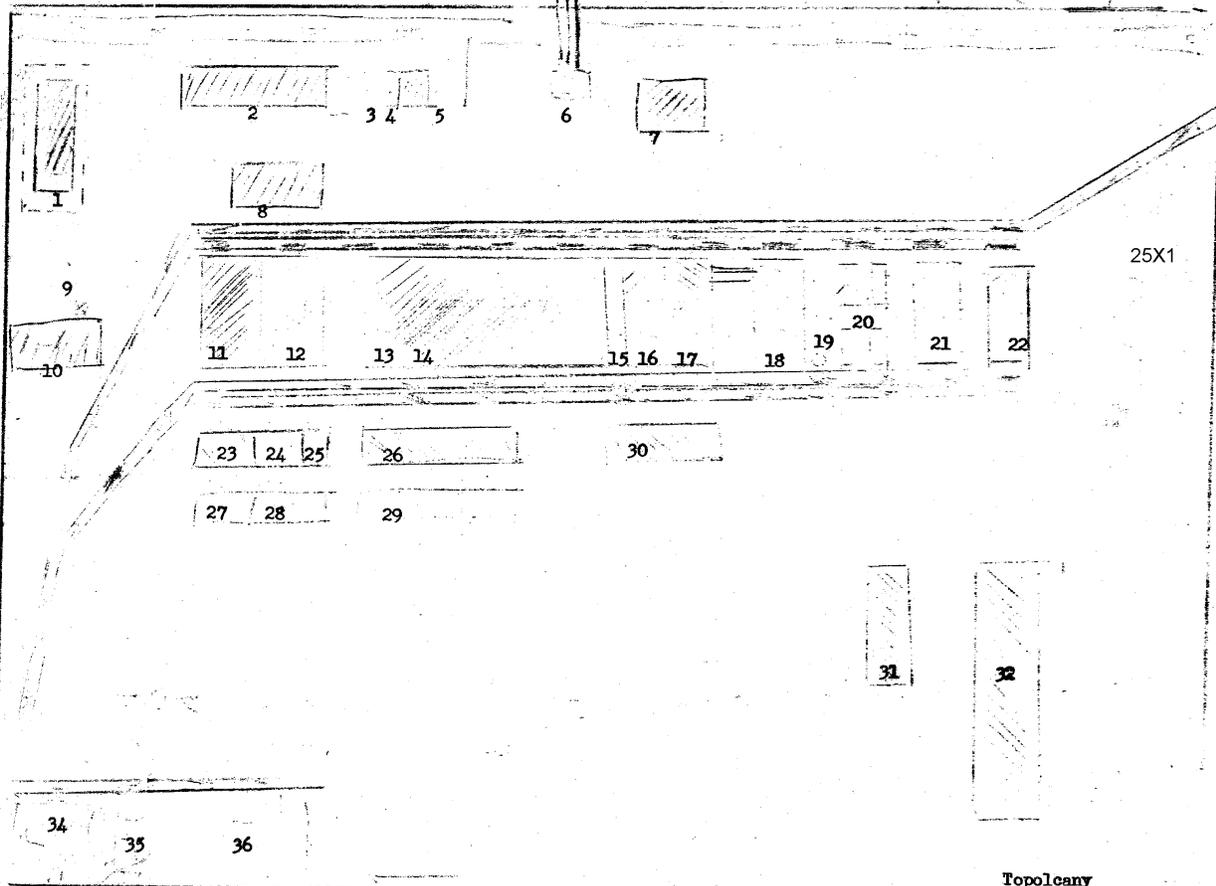
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Annex A

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Sketch of the Novak Chemical Works.



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Annex B

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## Key to Sketch of the Novaky Chemical Works

- (1) Underground fuel storage area for gasoline, naphthalene, paraffin and oil. Contains 5- to 6,000 drums of 200 litres each. Surrounded by a barbed wire fence, 8.5 meters in height.
- (2) Offices. 3 stories. Contains all administrative offices, telephone exchange, ambulance, safety communications center and political section.
- (3) Gate-keeper's lodge and factory militia guardroom.
- (4) First aid post with ambulance.
- (5) Garage for works' transportation.
- (6) Electrical sub-station; receives 300,000-volt current from Moravska Ostrava.
- (7) Plant for manufacture of BD.2 gas, and laboratory. Size of buildings; 4 x 15 x 30 meters. Strongly guarded by works militia and Soviet detachment.
- (8) Power house with auxiliary steam-driven electric generator. Single-story building.
- (9) Factory chimney, serving power house (No. 8 above).
- (10) Store-house for ceramic filters and fire brick. The filters are used for air conditioning and for the purification of chlorine, hydrochloric acid and carbonic acid.
- (11) Storehouse for tools, machinery and hydrogen. 25X1
- (12) The carbonic acid plant. The carbonate of soda is imported. It arrives in blocks measuring 10 x 13 x 60 cm. It is then made into cylinders 10 cm. in diameter and 50 cm. in length. 25X1
- (13) Transformer house.
- (14) Electrolysis Plant: This is fitted with rubber-lined baths. The processes are described as follows:
  - (a)  $\text{NaCl} = \text{Na} + \text{Cl}$ . (with Hg amalgam, Cl gas is liberated)
  - (b) In the second stage, the amalgam is separated into Na & Hg.
  - (c) With addition of water,  $2\text{Na} + 2\text{H}_2\text{O} = 2\text{NaOH} + \text{H}_2$
  - (d) The hydrogen and chlorine are piped to plant No. 18. There is an underground storehouse beneath this shed containing chlorine, hydrogen, sulphuric acid, carbonic acid and hydrochloric acid.
- (15) Salt mill and baking oven. The salt is ground into a powder, fed into boilers where it is boiled with water and becomes brine with a 25 to 33 % salt content. From here the brine is automatically fed to the electrolysis plant, No. 14.
- (16) and (17) Salt storage with capacity of 1,000 freight carloads of salt powder. Connected by conveyer to the brine boiler (No. 15 above) and salt mill.

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Annex B

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- (18) Hydrochloric acid plant: The hydrogen and chlorine gases produced in the electrolysis plant are piped by steam to the furnaces. The hydrogen passes through two water-filled safety chambers. This shed also includes a calcium chloride plant.
- (19) Factory chimney.
- (20) Chlorine gas tanks, fed by chlorine from the electrolysis plant.
- (21) Crystallization plant. Chlorine is fed in liquid form to compressors. When it is crystallized, it is led to the underground shed and then loaded into steel cylinders and railway tankers. This underground room is refrigerated as a safety precaution. On the other side of the building there is a trichloroethylene plant. Also contains the main chemical laboratory, which is strongly guarded.
- (22) Liquid caustic soda containing 29% NaOH is piped into large boilers kept at 350°C. It is then stabilized at 33 or 45% NaOH. Heat is provided by carbonic acid from Plant No. 14. The 33% NaOH is put into metal drums where it solidifies. These drums weigh 400 to 500 kg. filled. The titration laboratory and a section of the chemical analysis laboratories are situated on the other side of the building.
- (23) Works' canteen.
- (24) Repair workshops, including rubber repair section. Heavy industry research section.
- (25) Heavy Industry Polytechnic.
- (26) Storehouse.
- (27) Pickling shed.
- (28) Raw materials storehouse (For No. 24 above).
- (29) Storehouse for chemicals.
- (30) and (31) Machinery and tool store houses.
- (32) Polyvinylchloride plant. This 4-story building is used for making polyvinylchloride and plastic materials. The upper story contains research and technological laboratories. All products are very carefully inspected.
- (33) Lime kilns, daily capacity 30 freight carloads. (Not indicated on map).
- (34) Silos - Each kiln has 2 silos, one for coke and one for limestone. The construction of an automatic conveyor for loading coke and limestone is nearing completion.
- (35) Silos for processing lime.
- (36) Carbide plant under construction. To be completed by December 1952. New buildings are under construction near plants Nos. 28, 29, 30, 31 and 36 above. All electric cables in the factory are laid underground.

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